

What is claimed is:

1. A computer readable medium containing program instructions, which
when executed by a computer system, causes the computer to execute a method for
5 defining a data mapping between at least two data structures, the method comprising:

(a) selecting the at least two data structures, wherein each of the data
structures comprises a plurality of data elements; and
(b) analyzing previous data mapping definition information to derive a
definition of data mapping between the data elements of the at least two data structures.

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2. The computer readable medium of claim 1 wherein the previous data
mapping definition information comprises user defined information.

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3. The computer readable medium of claim 1 wherein the method further
comprises:

(c) presenting a plurality of possible data mapping definitions for selection.

4. The computer readable medium of claim 3 wherein the presenting
instruction (c) further comprises:

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(c1) prioritizing the plurality of possible data mapping definitions based
on at least one predefined rule.

5. The computer readable medium of claim 3 wherein the method further

comprises:

- (d) selecting one of the plurality of possible data mapping definitions.

6. The computer readable medium of claim 5 wherein the presenting
5 instruction (c) further comprises:

- (c1) prioritizing the plurality of possible data mapping definitions based on the data mapping definition selected.

7. The computer readable medium of claim 1 wherein the at least two data
10 structures are grouped into sets, a first data structure forming part of a first set and a second data structure forming part of a second set, and wherein the previous data mapping definition information comprises at least one of:

- i) a previous data mapping definition between two data structures, one from the first set and one from the second set;
- ii) a previous data mapping definition between two data structures, one from the first or second set and the other from another set; and
- iii) a previous data mapping definition between two data structures, neither of which come from the first or second set.

20 8. The computer readable medium of claim 7 wherein within a plurality of possible data mappings, a previous data mapping definition between two data structures, one from the first set and one from the second set, is ranked more highly than a previous data mapping definition between two data structures, one from the first or second set, and

the other from another set.

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9. The computer readable medium of claim 7 wherein within a plurality of possible data mapping definitions, a previous data mapping definition between two data structures, one from the first or second set and the other from another set is ranked more highly than a previous data mapping definition between two data structures which do not come from the first or second set.

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10. The computer readable medium of claim 1 wherein the previous data mapping definition information relates to messages of message sets.

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11. The computer readable medium of claim 10 wherein the previous data mapping definition information comprises at least one of:

- i) a message field to message field definition; and
- ii) a message name to message name definition.

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12. The computer readable medium of claim 1 wherein the analyzing instruction (b) further comprises:

- (b1) using reverse mapping definition information.

13. A method for defining a data mapping between at least two data structures comprising:

- (a) selecting the at least two data structures, wherein each of the data

structures comprises a plurality of data elements; and

(b) analyzing previous data mapping definition information to derive a definition of data mapping between the data elements of the at least two data structures.

5 14. The method of claim 13 wherein the previous data mapping definition information comprises user defined information.

15. The method of claim 13 further comprising:

(c) presenting a plurality of possible data mapping definitions for selection.

10 16. The method of claim 15 wherein the presenting step (c) further comprises:
(c1) prioritizing the plurality of possible data mapping definitions based on at least one predefined rule.

15 17. The method of claim 15 further comprising:
(d) selecting one of the plurality of possible data mapping definitions.

18. The method of claim 17 wherein the presenting step (c) further comprises:
(c1) prioritizing the plurality of possible data mapping definitions based 20 on the data mapping definition selected.

19. The method of claim 13 wherein the at least two data structures are grouped into sets, a first data structure forming part of a first set and a second data

structure forming part of a second set, and wherein the previous data mapping definition information comprises at least one of:

- i) a previous data mapping definition between two data structures, one from the first set and one from the second set;
- 5 ii) a previous data mapping definition between two data structures, one from the first or second set and the other from another set; and
- iii) a previous data mapping definition between two data structures, neither of which come from the first or second set.

10 20. The method of claim 19 wherein within a plurality of possible data mappings, a previous data mapping definition between two data structures, one from the first set and one from the second set, is ranked more highly than a previous data mapping definition between two data structures, one from the first or second set, and the other from another set.

15 21. The method of claim 19 wherein within a plurality of possible data mapping definitions, a previous data mapping definition between two data structures, one from the first or second set and the other from another set is ranked more highly than a previous data mapping definition between two data structures which do not come from
20 the first or second set.

22. The method of claim 13 wherein the previous data mapping definition information relates to messages of message sets.

23. The method of claim 22 wherein the previous data mapping definition information comprises at least one of:

- i) a message field to message field definition; and
- ii) a message name to message name definition.

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24. The method of claim 13 wherein the analyzing step (b) further comprises:

- b1) using reverse mapping definition information.

10 25. A system for defining a data mapping between at least two data structures comprising:

memory for storing a plurality of data structures, wherein each of the data structures comprises a plurality of data elements;
a selection component for selecting the at least two data structures; and
an analyzer for analyzing previous data mapping definition information to derive
15 a definition of a data mapping between the data elements of the at least two data structures.

26. The system of claim 25 wherein the previous data mapping definition information comprises user defined information.

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27. The system of claim 25 further comprising a means for presenting a plurality of possible data mapping definitions for selection.

28. The system of claim 27 wherein the means for presenting further comprises a means for prioritizing the plurality of possible data mapping definitions based on at least one predefined rule.

5 29. The system of claim 27 further comprising a means for selecting one of the plurality of possible data mapping definitions.

10 30. The system of claim 29 wherein the presenting means further comprises a means for prioritizing the plurality of possible data mapping definitions based on the data mapping definition selected.

15 31. The system of claim 25 wherein the at least two data structures are grouped into sets, a first data structure of said two or more data structures forming part of a first set and a second data structure of said two or more data structures forming part of a second set, and wherein the previous data mapping definition information comprises at least one of:

- i) a previous data mapping definition between two data structures, one from the first set and one from the second set;
- ii) a previous data mapping definition between two data structures, one from the first or second set and the other from another set; and
- iii) a previous data mapping definition between two data structure which do not come from the first or second set.

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32. The system of claim 31 wherein within a plurality of possible data mappings, a previous data mapping definition between two data structures, one from the first set and one from the second set, is ranked more highly than a previous data mapping definition between two data structures, one from the first or second set, and the other from another set.

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33. The system of claim 31 wherein within a plurality of possible data mapping definitions, a previous data mapping definition between two data structures, one from the first or second set and the other from another set is ranked more highly than a previous data mapping definition between two data structures which do not come from the first or second set.

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34. The system of claim 25 wherein the previous data mapping definition information relates to messages of message sets.

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35. The system of claim 26 wherein the previous data mapping definition information comprises at least one of:

- i) a message field to message field definition; and
- ii) a message name to message name definition.

36. The system of claim 25 wherein the analyzer further comprises a means for using reverse mapping definition information.

37. An intermediary system for defining a data mapping between at least two data structures, wherein each of the data structures comprises a plurality of data elements, comprising:

a means for receiving the at least two data structures; and

5 an analyzer for analyzing previous data mapping definition information to derive

a definition of a data mapping between the data elements of the at least two data structures.

38. The intermediary system of claim 37, wherein the previous data mapping

10 definition information comprises user defined information.

39. The intermediary system of claim 37 further including means for

presenting a plurality of possible data mapping definitions for selection.

15 40. The intermediary system of claim 39, wherein the means for presenting

further comprises a means for prioritizing the plurality of possible data mapping definitions based on at least one predefined rule.

41. The intermediary system of claim 39 further comprising a means for

20 selecting one of the plurality of possible data mapping definitions.

42. The intermediary system of claim 41, wherein the presenting means

further comprises a means for prioritizing the plurality of possible data mapping

definitions based on the data mapping definition selected.

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